COE Cost by Study Area Size

Subs. Per study area	Gross Switch Investment Per Loop	Switch Rev. Req. Per Loop
Under 500 Sub. loops	1,164.14	430.78
500 to 1,000 Subs.	755.49	277.64
10,000 to 20,000 Subs.	535.74	168.03
20,000 to 50,000 Subs.	476.90	149.33
200,000 to 500,000 Subs.	455.37	135.94
1,000,000 Subs.	367.93	116.47
Total	389.74	122.21

Source: 1995 FCC USF Data Request, Alaska Tel. Assoc. Comments CC 80-286

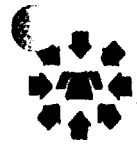
COE Cost by Avg. Switch Size

Subscribers Per Switch	Average Subs. Per Switch	Switch Gross Investment Per Subscriber
Less than 100	71	1,565.90
100 to 199	166	1,167.47
200 to 499	327	845.57
500 to 999	750	491.38
1,000 to 1,999	1,449	476.83
2,000 to 4,999	3,036	490.74
5,000 to 9,999	7,435	408.15
Over 10,000	13,748	358.81
Total	5,159	393.83

Source: 1995 FCC USF Data Request, Alaska Tel. Assoc. Comments CC 80-286

Dial Equipment Minute (DEM) Weighting

- Added Interstate recovery for local switching cost
- Weighting factor based on study area size (maximum 50,000 lines)
- Impacts - National
  - Average cost company - $3.15/line/month
  - Average average schedule company - $4.07/line/month
  - Maximum - $84.32/line/month



DEM Weighting Proposal

- Continue support to "rural telephone companies" under 50,000 lines
- Revise funding
  - eliminate funding for weighting from local switching element
  - transfer funding to high-cost universal service fund
- Estimated impact - $324 million (offset by access rate reductions of the same size)

Source: NECA Ex Parte Filing 9/27/95

USF for Rural, High Cost Areas

- Current USF Mechanism
  - Non-rural telcos
    - Freeze and transition to zero over time
  - Rural telephone companies (Rural telcos)
    - Continue existing mechanism based on national loop cost

USF for Rural, High Cost Areas

- Current USF Mechanism (cont.)
  - Rationale
    - Competition in rural telco areas will be limited (at least initially)
    - Actual costs provide accurate cost representation and assurance that costs are being invested in infrastructure
    - Provisions of Act limit likelihood of multiple eligible carriers
    - Provides incentives for continued investment in rural infrastructure

USF for Rural, High Cost Areas

- Current USF Mechanism (cont.)
  - Estimated cost
    - Cost before transition - $742 million
    - After transition (excluding study areas over 100,000 lines) - $499 million

Source: NECA Ex Parte Filing 9/27/95

USF for Rural, High Cost Areas

- Carrier Common Line (CCL)
  - Interstate End User Common Line (EUCL) set at the lower of national average interstate loop cost (about $6.00) or actual cost.
  - Long-term Support terminated
  - CCL reduced, restructured, or terminated
  - Difference between EUCL and CCL recovery and actual interstate loop cost recovered from fund.
  - Transition over four years

USF for Rural, High Cost Areas

- Carrier Common Line (CCL) (cont.)
  - Non-rural telco areas
    - Costs determined at wire center level based on embedded costs, frozen upon establishment
    - Other eligible carriers providing facilities would receive same per line recovery from fund as the incumbent telco in that serving area.

USF for Rural, High Cost Areas

- Carrier Common Line (CCL) (cont.)
  - Rural telco areas
    - Costs determined by study area or smaller area at telco request to state PSC using telco embedded costs
    - Costs updated annually
    - Other eligible carrier providing facilities would receive recovery based on their loop costs and EUCL and CCL revenue sources

USF for Rural, High Cost Areas

- Carrier Common Line (CCL) (cont.)
  - Estimated cost - $3.6 billion if long-term support and CCL are totally eliminated

Source of cost estimate: USTA Comments CC 96-45

Concerns with other Alternatives

- Benchmark Costing Model (BCM)
  - BCM not an adequate indicator of cost of service
  - No means of validating that support is being invested in infrastructure
  - Not developed based on rural area costs
  - Assumptions, costs, etc. not validated, verified, or appropriate
  - May lead to unwarranted duplication of facilities
  - May lead to lack of investment in certain areas (if BCM is toll low)

Concerns with other Alternatives

- Benchmark Costing Model (BCM) (cont.)
  - Example-Validity of Assumptions

Zone	Density Range HH/Sq Mile	Ratio -High to Low Limit	% RUS Co. Subs.	% PacTel Subs.
1	0-5	NA	8.4%	0.6%
2	5-200	40:1	72.5%	7.4%
3	200-650	3.25:1	15.8%	8.3%
4	650-850	1.3:1	0.0%	3.4%
5	850-2250	3:1	3.4%	30.8%
6	>2250	NA	0.0%	49.5%

Concerns with other Alternatives

- Benchmark Costing Model (BCM)
  - SWBT Study BCM compared to actual
    - Loop inv./household at least 50% different for 34% of LECs
    - ARMIS annual cost at least 50% different for 40% of LECs
    - Invest./household at least 25% different for 85% of 506 SWBT Texas wire centers

Concerns with other Alternatives

- Auction or Competitive Bidding Method
  - Inconsistent with Act
  - States have authority to determine eligible carriers
  - Potential to produce low service quality because winning bidder would be company committing lowest resources
  - Unnecessary in non-rural areas because Act contemplates multiple eligible carriers

Cost of Support for Rural, Insular, & High Cost Areas And for Low Income Consumers

A. Daniel Kelley
Hatfield Associates, Inc.

Summary

This presentation will describe the Hatfield Associates, Inc. local telephone cost model. The Total Service Long Run Incremental Cost ("TSLRIC") estimates produced by the model demonstrate that population density is a key driver of local telephone costs. The Model may be used to estimate universal service support requirements for each density zone.

The presentation will briefly describe universal service cost modeling from both a theoretical and an empirical perspective. The relationship between historical cost and economic cost, and the relevance of the differences for universal service funding will be discussed. The conclusion is that TSLRIC is the appropriate standard for evaluating universal service funding requirements.

The basic investment and cost modules will be briefly described. This discussion will summarize the loop and switching technologies employed in the model and give an overview of the network architecture assumed. The relationship between the Hatfield Model and the Benchmark Cost Model ("BCM") will also be discussed.

The Model is a flexible tool for cost analysis. In particular, the density range approach allows identification of the high-cost sector of user population. The Model has been presented in several states, including California, Colorado, Pennsylvania, and Utah. A version of the Model capable of estimating the costs of interconnection and unbundled network elements has been presented in the FCC's CC Docket No. 98-96 Proceeding.

****

Paul M. Hartman

Paul has been teaching classes on telecommunications primarily in the areas of jurisdictional separations, settlements, access charges and related issues full time for over ten years. He has taught classes for almost all of the groups currently involved in telecommunications in the United States. He was the Chair of the Executive Committee for the Implementation of Local Telecommunications Competition in the State of Indiana.

Prior to teaching full time for Hartman Associates, Inc., Paul worked for the Bell System for 13 years, 12 of which were in separations.

Paul received his BA in mathematics from Hope College in Holland, Michigan and an MBA in finance from Fairleigh Dickinson in Madison, New Jersey. Paul lives in Littleton, Colorado.

****

Observations - Paul Hartman

Implicit to explicit

History

- Political compromise in past
- Time frames and efforts in past

Issues

- Competition and universal service - mutually exclusive?
- Historical contribution of small telephone companies
- Any USF program needs assurances
- Need to be careful
- Stakes high

PRESENTATION BY MICHAEL PELCOVITS, CHIEF ECONOMIST
MCI TELECOMMUNICATIONS CORPORATION
BEFORE THE FEDERAL-STATE JOINT BOARD ON UNIVERSAL SERVICE
JUNE 5, 1996

I. CURRENT RECOVERY MECHANISMS

- Universal Service has been defined as maintaining local rates at affordable levels. This objective has been satisfied by balancing rate levels within a revenue requirement framework.

- More recently, regulatory commissions have sought to maintain affordable rates through price cap plans. Price cap plans freeze existing "subsidies" in place.

- Although price cap plans were a reasonable response to the initial phases of competitive development, the acceleration in marketplace developments created by the Telecommunications Act requires a major restructuring of subsidy mechanisms and a new look at cost recovery practices.

II. COST RECOVERY AND SUBSIDIES IN THE NEW ENVIRONMENT

- A system of internal cross-subsidies is totally inconsistent with development of competitive markets. New entrants cannot be saddled with above cost rates to support their competitors.

- Universal service objectives must be defined and the costs of providing those services to achieve those objectives must be determined. The correct basis for determining costs is what would be recovered in a competitive marketplace.

- An assessment on all carriers based on revenues net of payments to other carriers will impose the fewest distortions.

BEFORE THE
FEDERAL COMMUNICATION COMMISSION'S
FEDERAL-STATE JOINT BOARD ON UNIVERSAL SERVICE

CC Docket 96-45

STATEMENT OF THE HONORABLE CHERYL A. PARRINO CHAIR, WISCONSIN PUBLIC SERVICE COMMISSION

ON

ALTERNATIVES FOR RECOVERING COSTS AND PROVIDING UNIVERSAL SERVICE SUPPORT

JUNE 5, 1996

National Association of
Regulatory Utility Commissioners
1201 Constitution Avenue, N.W., Suite 1102
Post Office Box 684, Washington, D.C. 20044-0684
Telephone (202) 898-2200, Facsimile (202) 898-2213
Internet Home Page http://www.erols.com/naruc

Good afternoon, Chairman and Commissioners. I am Cheryl Parrino, Chair of the Wisconsin Public Service Commission and President of the National Association of Regulatory Utility Commissioners. On behalf of NARUC, I welcome this opportunity to convey the states' perspective and concerns regarding alternatives for recovering cost and providing universal service support. In my prepared remarks, I will provide an overview of state regulatory practices and particularly the states' framework for assuring universal service and facilitating local exchange competition. I am hopeful that this overview will tangibly explain why the states are concerned that a fair and appropriate balance must be established when implementing local exchange competition and universal service.

In the May 31st invitation letter that I received from Chairman Hundt, several specific questions were posed for me to address in my remarks. Each question pertains to universal service cost recovery, and in the interest of adhering to the time allotted, I will focus mainly on the questions of (1) what techniques are available for universal service cost recovery; (2) how do they comport with Section 254; and (3) how are each of the techniques affected by competition in some or all markets, or with policies that facilitate competition?

The subject of universal service cost recovery addresses the heart of the policy issues facing the FCC and the states as we proceed to implement the new law. The pricing provisions of Section 251 will establish the parameters of the negotiation and arbitration requirements of interconnection, unbundling and resale, among other things.

The FCC's Interconnection NPRM proposes to establish a specific pricing standard that would impose a formula or methodology for the states to follow. While NARUC's Comments and Reply Comments have documented our concerns with this one size fits all preemptive outlook that is proposed, the point that I want to highlight today is the potentially detrimental impacts that could ensue for universal service.

Section 254 establishes a competitively neutral framework for fostering and enhancing universal service objectives. These provisions are intended to allow competition to flourish and for consumers to benefit from such competition in the form of core services to which they will have access at an affordable price. It is noteworthy that Section 254 pertaining to universal service is included within the title of the Act pertaining to the development of competitive markets. Most assuredly, NARUC believes that local exchange competition and universal service can and should be complementary of one another. The overlap between the pricing provisions of Sections 251 and 254 pertain to the issue of how joint or common costs will be recovered. Arguably, local loop costs comprise the single largest category of joint or common costs which must be allocated among various services.

In the Interconnection NPRM, the question is framed as to how common costs, overheads, or any other added increment to total service long run incremental costs should be allocated.[1]

---

[1] See para. 129-131 of Interconnection NPRM, Docket No. 96-98: "We also seek comment on how, if rates are to be set above LRIC, to deal with the problems inherent in allocating common costs and any other overheads."

There is a cost allocation standard in Section 254 of the Act that addresses the same concern. Subsection 254(k) prohibits noncompetitive services from subsidizing competitive services. The provision further directs that, "The Commission, with respect to interstate services, and the States, with respect to intrastate services, shall establish any necessary cost allocation rules, accounting safeguards, and guidelines to ensure that services included in the definition of universal service bear no more than a reasonable share of the joint and common costs of facilities used to provide those services." This subsection of 254 has not been referred to the Universal Service Joint Board at this time. This portion of Section 254 adopted the Senate language set forth in S.652. The Conference Report indicates that the Senate recognized the significance of this issue, as it explained that "the Commission and the States are required to establish any necessary cost allocation rules, accounting safeguards, and other guidelines to ensure that universal service bears no more than a reasonable share *(and may bear less than a reasonable share)* of the joint and common costs of the facilities used to provide both competitive and noncompetitive services" (emphasis added).

It would appear that should the FCC proceed with the national pricing standard as tentatively concluded in the Interconnection NPRM, which must be resolved by August 8, 1996, that this decision would directly bear on the Section 254(k) issue of defining a reasonable share of joint and common costs allocated to universal services, to be recommended by the Joint Board and the Commission. The underlying assumption is that the simultaneous promotion of local competition and universal service as contemplated in the 1996 Act requires a coordinated approach to allocating joint or common costs amongst various service categories.

If national pricing of interconnection is set without regard for the allocation of joint or common costs, then the issue will arise under Section 254(k) whether all of the joint and common costs could be allocated to universal services and still reflect a "reasonable share." If not, then where would such costs be allocated? The "reasonable share" language of Section 254(k) is an undetermined limitation, on the inclusion of joint and common costs within the federal and state universal service support mechanisms. One could attempt to argue that in order to appropriately stimulate competition by maintaining interconnection pricing as low as possible, "reasonable share" constitutes 100% of such costs. However, such an argument would disregard the last sentence of Section 254(k), i.e., that it be a "reasonable share" of joint and common costs.

The establishment of prices for many or all of the services proposed to be included in the federal definition of universal service traditionally has occupied the forefront of the public interest rate-setting standard for the states. Under the increasingly irrelevant rate base rate of return form of regulation, an overall revenue requirement was established and rates were set based on a cost of service study which allocated costs among various service categories. It was typically argued by companies that the local loop costs should be entirely allocated to basic local service, and once this premise became accepted, its corollary was that toll service subsidized basic services. Under this scenario, basic services were alleged to be priced below cost and therefore subsidized by other service categories.

With the advent of price cap regulation, prices or rates were intended to become the focal point for regulation rather than costs. Many states with price cap plans in place continue to have the need to examine costs in the context of setting prices for individual services or service elements. Certainly costs will continue to be a focal point for the setting of interconnection rates pursuant to Section 252(d), in accordance with the Congressional mandate. Many states' price cap plans have provisions that permit rate adjustments for exogenous changes. The establishment of a cost or price standard for interconnection rates which is based on some methodology that is different than the method used to set other local basic service rates could give rise to a shortfall in revenue recovery that would constitute an exogenous change. Most importantly, if no local loop costs are allocated to the interconnection cost methodology, there remains a larger portion of those costs to be allocated to other services such as those included as core services under the universal service umbrella. This shortfall could then be passed along to ratepayers in the form of a price increase. However, the restriction in Section 254(k) applies equally to intrastate and interstate services and would pose an obstacle to loading these costs onto services included within the definition of universal service. States would then be faced with the daunting task of identifying other service categories or another class of customers that could absorb the additional allocation of joint or common costs.

State regulatory commissions have consistently encouraged companies to undertake mitigation efforts which would facilitate the introduction of local exchange competition. For example, some companies have sought accelerated depreciation without proposing any associated rate increase to write down investment levels to more market based levels.

Rate rebalancing proposals have become commonplace, proposing revenue neutral price adjustments among various service categories to more closely align costs and rates. These rate changes often require an examination of a company's cost and pricing structure which necessarily includes an evaluation of local loop or joint and common cost recovery. In the course of implementing the Telecommunications Act of 1996, states necessarily have been required to evaluate and balance the introduction of local exchange competition and preservation and advancement of universal service. Each state commission considers its own unique local market conditions to identify and implement the appropriate balance. For example, a major consideration may be the dichotomy of rural and urban geography within a given state. In the rural, higher cost areas, there may be a push to increase rates and a corresponding push to decrease rates in urban, lower cost areas. Depending upon the geographic composition of a state, and the dispersion of high cost and low cost areas within its boundaries, a state may permit some limited rate deaveraging so that local exchange competition can take hold in the lower cost, urban areas while at the same time, certain universal service measures may be implemented for the rural, higher cost areas to mitigate the cost impacts of deaveraging. This type of balancing should be recognized and respected as part of the federal implementation efforts of the 1996 law.

In conclusion, there is a direct linkage between the establishment of a cost and price standard for interconnection rates and the setting of end user prices. This linkage occurs via the allocation of the local loop and other joint or common costs. This subject is addressed in both the interconnection and universal service dockets pending before the Commission. The national framework contemplated for the pricing of interconnection heightens the states' concerns with